# Case Study
## Kanto Gakuin University

»The private cloud environment was established by leveraging Fujitsu's implementation know-how. The new infrastructure will allow us to transit from a cost-center to a true service provider.«

**Kunio Saito, Operation Manager, Information Technology Center, Kanto Gakuin University**

### The Customer

Country: Japan
Industry: University
Founded: 1884
Students: About 12,000

### The Challenge

- Need to improve educational and back office ICT management
- Unmanaged server growth caused security and power consumption problems, and uncontrolled investment
- Difficult to administrate virtual machines
- Limited time and budgets

### The Solution

- Fully certified cloud environment was selected to save time and money
- Consolidation of physical servers prevents uncontrolled investment
- Power control of virtual machines enabled power saving
- Centralized administration creates operational efficiency

### The Customer

Kanto Gakuin University, located in Yokohama, was established in 1884 as a base for Christianity to cultivate tolerance and provide education for highly talented people. With a long history of tradition, the education system is well known for providing quality development to individuals with ability and potential.
In 2013, the university plans to enhance their presence by adding three departments; Nursing, Engineering Science, and Construction & Environment. This will be in addition to the current 5 research courses and 12 general courses available across 10 subjects of 5 departments.

### The Challenge

The university needed to improve information and communication technology (ICT) management of their educational system (e.g. e-Learning), as well as the back-office system. Through a lack of central management, individual teachers dictated the use of the ICT environment in whichever way they required. This resulted in an unnecessary increase in the number of departmental servers. Alternatively, they used virtual machines, however monitoring usage and return of the resources was difficult.
At the beginning of the school year, the university students are asked to create their own virtual machines on the center's servers to utilize during classes. These messy environments cause many operational issues such as security problems, inefficient power consumption, and uncontrolled investment. However due to the dependence on the system during the school term, a replacement would need to be arranged throughout spring vacation. This meant the challenge would not only be dependent on the short amount of time available, but also the budget required to replace the whole environment.

### The Solution

In making their decision, the university was attracted to Fujitsu's ability for integrated management of ICT. They selected a pre-configured, packaged private cloud solution adopted from an identical system on display in the Fujitsu showroom at the Trusted Cloud Square. The private cloud solution consolidated 50 physical servers to 8 PRIMERGY BX924 blades, including an administration server, all within the new chassis. With the PRIMERGY blades, the configuration includes 2 units of ETERNUS DX80 for data storage, and Resource Orchestrator's self-service portal for the deployment of virtual servers. Through this unique configuration, power monitoring of the whole system can be achieved as the infrastructure stack uses consistent software.

## The Benefit

- Reduce risk through preconfigured secure environment
- Reduce investment through centralized administration
- Efficient allocation of virtual machines, from 2 business days to within 30 minuets
- Prompt installation during spring vacation saving time and cost
- Flexible support for multi-platform virtual OS
- Reduce design and configuration costs by 40%

## Products and Services

- IA Server Fujitsu PRIMERGY BX924 x 8
- Storage system Fujitsu ETERNUS DX80 x 2
- Virtualization Software VMware vSphere 5
- Cloud Software Fujitsu ServerView Resource Orchestrator
- School Affairs Integration Application Fujitsu Campusmate/PCWatcher

## The Benefit

Fujitsu's certified private cloud allowed the university to easily establish a secure environment and was in line with the university's vision of operational consolidation. By consolidating servers for both teachers and students, the university reduced investment through centralizing administration and enabling efficient allocation of resources. When users required a virtual machine, it generally took at least 2 business days from request, to activation. Additionally, after allocating the resource, the user then had to manage the information on their desktop manually.

The new workflow created with Resource Orchestrator dramatically changed the university's administration process. Users were now able to request resources via a self-service portal, start the approval process and then virtual machines were automatically dispatched without further administrator effort. Once the resource is allocated, an e-mail notice is sent automatically to the user. This whole process reduced the previous 2 days to just 30 minutes.

As system replacement needed to be completed during spring vacation, Fujitsu was identified as the only vendor who could ensure the prompt and quick installation required. The university was able to verify Fujitsu's strong expertise in private cloud design and configuration through Fujitsu's demonstration at the Trusted Cloud Square in Tokyo. As such, the university was certain that the template configuration would perfectly fit into their environment and had a clear image of how the system would operate. As the university's system administrators had become quite familiar with VMware vSphere, they were reluctant to change the virtual environment. Fortunately Resource Orchestrator supports multi virtual platforms, and they were able to choose VMware vSphere for their new virtual environment.
The prompt installation of the Fujitsu solution enabled the university to save on design and configuration costs by 40%.

## Conclusion

Kanto Gakuin University with Fujitsu, have considered the establishment of their private cloud since 2009. Together they divided the innovation into three phases. The first phase was to renew the infrastructure, this project, "OliveNet", was commenced in 2010 and maximized the availability of servers using fall back.

The second phase looked at strengthening power saving measurements and disaster recovery, the importance of which was recognized following the major Japanese earthquake in 2011. This activity included the relocation of mission critical servers such as web administration and the student's enrollment system, to an outside datacenter.

As the third and final phase, the private cloud service was optimized to enhance overall convenience of the academic research service. The university is looking forward to maximizing their use of cloud for further increases in efficiency, operations and cost savings that benefit their growth.

"Adopting a self-service portal means we can establish the provision of fundamental services. Previously, our Information Technology Center was in the way of transitioning the university from a cost center to a true service provider. We expect Fujitsu to continue leading initiatives with cutting-edge proposals and support a win-win relationship with the university."
*Kunio Saito, Operation Manager, Information Technology Center, Kanto Gakuin University*

## About Fujitsu

Fujitsu is the leading Japanese information and communication technology (ICT) company offering a full range of technology products, solutions and services. Over 170,000 Fujitsu people support customers in more than 100 countries. We use our experience and the power of ICT to shape the future of society with our customers. Fujitsu Limited (TSE:6702) reported consolidated revenues of 4.5 trillion yen (US$54 billion) for the fiscal year ended March 31, 2012.

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